

# SOME NEW SPECIES OF BLATTIDÆ

## IN THE BRUSSELS MUSEUM

by **R. Shelford**, M. A.

### THEGANOPTERYX CONGOENSIS, sp. n.

♂ ♀. Pale testaceous. Pronotum transversely elliptical, lateral margins broadly hyaline. Tegmina exceeding apex of abdomen, clear testaceous, marginal field broad, radial vein simple, 11 costals some bifurcate, 5 slender oblique discoidal sectors, posterior ulnar simple. Wings hyaline, mediastinal vein simple, 8 costals, their apices incrassated, ulnar vein bifurcate, apical triangle prominent. Supra-anal lamina, (♂) transversely trigonal, (♀) triangular, apex deeply cleft. Sub-genital lamina (♂) narrow, produced, exceeding the supra-anal lamina, 2 minute styles. (Cerci mutilated.) Front femora on anterior margin beneath with 3-4 strong spines succeeded by piliform setæ.

Total length ♂ 9,2 mill.; ♀ 9 mill.; length of body ♂ 8 mill., ♀ 7,5 mill.; length of tegmina ♂ 7 mill., ♀ 6,1 mill.; pronotum,  $2 \times 3,3$  mill.

Congo State, Loango (WÆLBROECK). Luki, Mayumbe (ENGELBERT), Boma (TSCHOFFEN). Three examples.

One of the few testaceous species of the genus.

### THEGANOPTERYX BANANÆ sp. n.

♂. Testaceous; disc of pronotum castaneous. Pronotum anteriorly parabolic, posteriorly truncate. Tegmina clear testaceous, scarcely exceeding apex of abdomen, venation as in preceding species. Wings hyaline, 7 costals, their apices not incrassated, joined at their bases by oblique venulæ, ulnar vein bifurcate. Supra-anal lamina trigonal, exceeded by the sub-genital lamina which is produced and strongly cucullate, styles minute. Cerci long, slender. Front femora as in preceding species.

♀. Similar to ♂ but pronotum broader, tegmina not exceeding apex of abdomen, with numerous minute quadrate castaneous maculæ between the veins. Wings rudimentary. Supra-anal lamina triangular, apex incised; sub-genital lamina semi-orbicular, ample.

Total length ♂ 9 mill., ♀ 7,9 mill.; length of body, 7,9 mill.;

length of tegmina ♂ 7 mill.; ♀ 5 mill.; pronotum ♂  $2 \times 3$  mill., ♀  $3 \times 4$  mill.

Congo State, Banana (F. BUSSCHODTS).

4 ♂♂, 1 ♀.

Allied to *T. congoensis* but distinguished by the marked sexual dimorphism, the different wing-venation and darker pronotum.

#### ISCHNOPTERA SORDIDA sp. n.

♂ and ♀. Sordid testaceous. A band between the eyes and some spots on the face castaneous. Pronotum with two castaneous blotches, irregular in shape, on the disc. Tegmina with radial vein bifurcate, 14 costals, 9 longitudinal discoidal sectors, anterior ulnar 3-ramose. Wings infuscated, mediastinal vein 5-ramose, radial vein bifurcate, 6-7 costals, ulnar vein 7-ramose, 4 of the rami being incomplete. Supra-anal lamina, (♂) produced, triangular, considerably exceeding the subgenital lamina, (♀) trigonal, apex deeply incised. Opening of scent glands in male, situated in 8th abdominal tergite. Sub-genital lamina (♂) slightly asymmetrical, with two styles. Cerci moderately long. Front femora armed on anterior margin beneath with a complete row of spines, the distal shorter than the proximal.

Total length 16 mill.; length of body 12-13 mill.; length of tegmina 13 mill.; pronotum  $4 \times 5,2$  mill.

Cameroons, Mundame Mungo (Oxford Museum, types), Mukonje Farm (Brussels Museum, a long series).

Allied to *I. punctifrons* GERST.

#### ISCHNOPTERA ROHDEI sp. n.

♂ and ♀. Above castaneous, lateral margins of pronotum and of tegmina at base testaceo-hyaline. Head testaceous, vertex and some maculæ on the face castaneous; antennæ castaneous, except at base. Disc of pronotum with paler castaneous suffusion, inner border of testaceous margin sinuate, anterior margin narrowly flavo-testaceous. Tegmina exceeding apex of abdomen, radial vein bifurcate, 17 costals, 9 longitudinal discoidal sectors, anterior ulnar 3-ramose. Wings infuscated, mediastinal vein multiramose, radial bifurcate, 10 costals, ulnar vein with 7 rami, 2 being incomplete. Supra-anal lamina, (♂) trigonal with scent-gland opening at base, apex slightly incised, (♀) trigonal, apex slightly incised. Sub-genital lamina (♂) rotundate, symmetrical, with 2 short styles situated in

small notches in the posterior border, the styles are beset with minute spines, the right is a little shorter than the left. Cerci slender. Body beneath and legs rufo-testaceous. Front femora with long spines succeeded distally by shorter. Total length 27 mill. ; length of body 11 (♀) — 12 (♂) mill. ; length of tegmina 13 mill. ; pronotum 3,1 mill.  $\times$  4,6 mill.

Cameroons, Mukonje Farm (H. RONDE) 1 ♂, 2 ♀♀.

This belongs to the group including *I. cinnamomea*, GERST., *I. punctifrons* GERST. etc. but is distinguished by the form of the supra-anal lamina in the ♂; the nearest ally of the species appears to *I. bimaculata*, GERST.

#### ISCHNOPTERA CRURALIS sp n.

♂ and ♀. Piceous, nitid. Antennæ bright rufous except at base. Pronotum barely covering vertex of head, posteriorly rounded, sides deflexed, a pair of shallow oblique impressions. Tegmina considerably exceeding apex of abdomen, 14—16 costals, radial vein bifurcate in posterior third, 9 longitudinal discoidal sectors, anterior ulnar tri-ramose, 5-7 costals, ulnar vein with 10 rami, 4 being incomplete. Opening of scent-gland (♂) on 1<sup>st</sup> abdominal tergite; supra-anal lamina (♂) produced, sub-quadrate, posterior angles rounded, (♀) narrow, trigonal. Abdomen beneath with the apex rufescent, apex piceous; sub-genital lamina, (♂) produced, asymmetrical, the apex pointed and together with the single (left) style clothed with stout bristles, (♀) ample, semiorbicular. Cerci orange. Legs piceous, the tibiæ, except at base and apex, orange, front femora with a complete row of spines on anterior margin beneath, the more distal the shorter.

♂ Total length 21,5 mill. ; length of tegmina 17,2 mill. ; length of body 17 mill. ; pronotum 4,7 mill.  $\times$  5 mill.

♀ Total length 27,5 mill. ; length of tegmina 22,1 mill. ; length of body 20,5 mill. ; pronotum 6,1 mill.  $\times$  7,2 mill.

Cameroons. ♂ Type in Brussels Museum. ♀ Type in Oxford Museum.

This is quite different from all the known African species of *Ischnoptera* and is more closely allied to some of the larger Oriental species.

The African species of *Ischnoptera* can be distinguished as far as the males are concerned by the following key. The females resemble each other very closely and present practically no characters of importance in specific diagnoses, it is consequently impossible to draw up a really reliable key to their identification especially as

I have been unable to examine all of the type specimens. The description of new species of *Ischnoptera* from female examples is strongly to be deprecated.

KEY TO AFRICAN SPECIES OF *ISCHNOPTERA*.



1. Species of large size (exceeding 18 mill. in total length), legs bicolorous . . . . . *I. cruralis* sp. n. (Cameroons).
- 1'. Species of smaller size (not exceeding 18 mill. in total length), legs unicolorous.
  2. Pronotum black with 3 discoidal rufous spots . . . . . *I. Bocagei* BOL. (Angola).
  - 2'. Pronotum not as above.
    3. Unicolorous piceous species . . . . . *I. picea* SCHULTH. (Somali-land).
    - 3'. Not unicolorous piceous species.
      4. Scent-gland opening at base of supra-anal lamina.
        5. A pair of backwardly-directed chitinous processes from beneath the 6th abdominal tergite . . . . . *I. cinnamomea* GERST. [= *basalis* GERST.] (Cameroons).
        - 5'. No backwardly-directed chitinous processes.
          6. Subgenital lamina symmetrical . . . . . *I. Rohdei* sp. n. (Cameroons).
          - 6'. Subgenital lamina asymmetrical. *I. bimaculata* GERST. (German E. Africa).
  - 4'. Scent-glands not opening at base of supra-anal lamina.
    5. Subgenital lamina very asymmetrical.
      6. With only one genital style.
        7. Style slender (fulvo-testaceous species) . . . . . *I. malagassa* SAUSS. & ZEHNT. (Madagascar).
        - 7'. Style robust (castaneous species) *I. natalensis* WALK. (Natal).
      - 6'. With two styles . . . . . *I. strigosa* SCHAUM. [= *incuriosa* SAUSS.] (E. Africa).
    - 5'. Subgenital lamina less asymmetrical, with two styles.
      6. Supra-anal lamina produced, considerably exceeding subgenital lamina.
        7. Supra-anal lamina sub-quadrangular (fulvo-testaceous species, pronotum immaculate) . . . . . *I. relucens* GERST. (Cameroons).
        - 7'. Supra-anal lamina triangular (sordid testaceous species, pronotum indistinctly bi-maculate) . . . . . *I. sordida* sp. n. (Cameroons).

6'. Supra-anal lamina not produced, not or scarcely exceeding the sub-genital lamina.

7. Pronotum bi-maculate; supra-anal lamina slightly exceeding the sub-genital lamina . . . . . *I. Longstaffi* SHELFF (Zambesi).

7'. Pronotum not bi-maculate; supra-anal lamina exceeding the sub-genital lamina. . . . . *I. punctifrons* GERST.  
[= *ægrota* GERST.]  
(Cameroons).

♀♀

1. Species of large size (exceeding 18 mill. in total length), legs bicolorous. . . . . *I. cruralis* sp. n.

1'. Species of smaller size (not exceeding 18 mill. in total length), legs not bicolorous.

2. Apex of supra-anal lamina incised.

3. Supra-anal lamina with acute median carina. . . . . *I. jallæ* GRG.-TOS (Upper Zam-  
[besi].

3'. Supra-anal lamina without acute median carina.

4. Pronotum bimaculate . . . . . { *I. bimaculata* GERST.  
and  
*I. sordida* sp. n.

4'. Pronotum not bimaculate.

5. Pronotum rufescent, paler than tegmina. . . . . *I. cinnamomea* GERST.

5'. Pronotum castaneous, unicolorous with tegmina. . . . . *I. Rohdei* sp. n.

2'. Apex of supra-anal lamina not incised.

3. Supra-anal lamina produced, triangular. *I. malagassa* SAUSS. & ZEHNT.

3'. Supra-anal lamina produced, trigonal.

4. Pronotum bimaculate . . . . . *I. Longstaffi* SHELFF.

4'. Pronotum not bimaculate.

5. Wings with apical triangular area . . . . . *I. neutra* SAUSS. (E. Africa).

5'. Wings without apical triangular area.

6. Sordid testaceous species. *I. punctifrons* GERST.

6'. Rufous species . . . . . { *I. relucens* GERST.  
and  
*I. strigosa* SCHAUM.  
[? = *incuriosa* SAUSS.].

### PHYLLODROMIA SEVERINI sp. n.

♂, ♀. Rufo-testaceous. Antennæ fuscous, except at base, where they are testaceous. Eyes and antennal sockets equally far apart. Pronotum transversely elliptical, laterally hyaline. Tegmina clear flavo-hyaline, considerably exceeding apex of abdomen, veins very slender, marginal field moderately broad, 11 costals, some being

ramose, 5 oblique discoidal sectors, posterior ulnar simple, discoidal field reticulated. Wings hyaline, veins flavid, mediastinal vein multiramose, 9-11 costals, ulnar vein 6 ramose, no triangular apical area. Supra-anal lamina, (♂) shortly produced, triangular, exceeded by the subgenital lamina, (♀) short transverse. No scent-gland openings visible in the ♂. Subgenital lamina (♂) shortly produced, apex cleft, a strong median carina and a deep fold on either side of this; styles short, acuminate, directed downwards. Cerci long, slender, 11-jointed. Front femora armed on anterior margin beneath with piliform setæ, not extending to basal third of margin. Formula of apical spines 3/1, 1/1, 1/1. Ootheca chitinous, carried with the suture uppermost.

Total length 14,5-15,5 mill.; length of body 12 mill.; tegmina 12 mill.; pronotum 3 × 5 mill.

Cameroons, Mukonje Farm (H. ROHDE), 2 ♂♂, 1 ♀.

Nearest to *P. translucida* mihi. The form of the subgenital lamina is as in *Temnopteryx ectobioides*, mihi.

I have much pleasure in naming this species after M. G. SEVERIN to whom I am indebted for the opportunity of examining the interesting collection of Blattidæ in the Brussels Museum.

#### PHYLLODROMIA CAMERUNENSIS sp. n.

♀. Castaneous. Head rufous, antennæ piceous, eyes rather wide apart. Pronotum transversely elliptical, lateral margins widely, posterior margin narrowly, testaceo-hyaline. Tegmina uniform castaneous, considerably exceeding the apex of the abdomen, lanceolate; marginal field rather broad, radial vein with apex ramose. 10 costals, the last 2 ramose, 6-7 oblique discoidal sectors, posterior ulnar simple. Wings infuscated, mediastinal vein ramose, 5 costals, the last 2 ramose, ulnar vein with 5 rami. Abdomen piceous above, rufous below. Supra-anal lamina trigonal, apex produced and deeply cleft, forming two narrow hirsute lobes. Subgenital lamina semi-orbicular, ample, carinate near apex, posterior margin slightly incised in the middle. Cerci moderately long, slender, acuminate. Coxæ testaceous or rufo-castaneous; femora rufo-castaneous or castaneous; tibiæ darker. Front femora on anterior margin beneath with piliform setæ only. Formula of apical spines 2/1, 1/1, 1/1.

Total length 17 mill.; length of body 13 mill.; length of tegmina 15 mill.; pronotum 3,5 × 5,5.

Cameroons, Mukonje Farm (H. ROHDE). Two examples.

## PHYLLODROMIA STOLIDA sp. n.

♂, ♀. Sordid testaceous. Vertex and front with castaneous bands. Pronotum trapezoidal, lateral margins hyaline, disc with traces of darker markings. Tegmina exceeding apex of abdomen, radial vein simple, 11 costals, last 2 or 3 ramose, 4 longitudinal discoidal sectors, posterior ulnar simple. Wings hyaline, mediastinal and radial veins simple, 10 costals, their apices incrassated, last 3 bifurcate, ulnar vein tri-ramose, triangular apical area insignificant. Abdomen above and beneath bordered all round with castaneous. Supra-anal lamina, (♂) trigonal, apex entire, (♀) transverse. Subgenital lamina (♂) not much produced, with two slender styles. Cerci moderate, tipped with castaneous. Front femora armed on anterior margin beneath with 3-4 spines succeeded by piliform setae.

Total length 10 mill.; length of body 7,5 mill.; length of tegmina 8,2 mill.; pronotum 2 × 3 mill.

Congo State, Kinchassa (WÆLBRÖECK). Two examples.

Allied to *P. hemerobina* GERST.

## LIOSILPHA BRUNNEA sp. n.

♀. Castaneous. Head piceous. Antennæ longer than body. Eyes wide apart. Maxillary palpi with 2nd and 3d joints subequal, 4th joint only a little shorter. Pronotum scarcely covering vertex of head, sides not so much deflexed as is usual in this genus, lateral margins flavo-hyaline but not extending to posterior angles, disc with rufous suffusions. Tegmina castaneous, mediastinal field hyaline, barely exceeding apex of abdomen, broad, overlapping strongly, of equal breadth throughout, apex blunt, rounded; marginal field equal in length to discoidal field, mediastinal vein bi-ramose, radial vein not bifurcate, apex ramose, 10 costals, the last 3 ramose, 8 more or less oblique discoidal sectors, posterior ulnar 3-ramose. Wings infuscated, mediastinal vein bi-ramose. 8 costals, ulnar vein with 6 rami. Supra-anal lamina trigonal, apex slightly incised. Cerci very long, almost as long as the posterior tibiæ. Coxæ and femora blotched with testaceous, femora piceous, tibiæ and tarsi castaneous. Front femora on anterior margin beneath with a row of close-set spines beginning in the middle third of the margin and not extending quite to the apex.

Total length 20 mill.; length of body 17,8 mill.; length of tegmina 16 mill.; pronotum 5,5 mill. × 7,5 mill.

Cameroons, Mukonje Farm (H. RONDE). One example.

A very distinct species, more depressed than usual in this genus.

## METHANA PAPUA sp. n.

Head testaceous, the frons and a broad band down the centre of the face piceous. Labrum bilobate; antennæ castaneous. Pronotum piceous, nitid, margined all round with flavid. Tegmina castaneous, nitid, laterally margined with flavid, not extending far beyond the apex of the abdomen. Abdomen piceous, margined above and beneath with flavid.

Supra-anal lamina, (♂) sub-quadrate, apex emarginate, (♀) trigonal, produced, cucullate, apex truncate and emarginate, posterior angles acute.

Sub-genital lamina (♂) sub-quadrate. Cerci elongate. Coxæ and femora testaceous, tibiæ and tarsi castaneous.

Total length 27–28,5 mill.; length of body 24–25,5 mill.; length of tegmina 21–22,5 mill.; pronotum 8,1 mill.  $\times$  9,3 mill.

British New Guinea, Astrolabe district (♂ type in Genoa Museum, ♀ type in Brussels Museum).

Allied to *M. marginalis* SAUSS. but larger and with the pronotum margined all round. The bilobate labrum is characteristic of the Australasian species of the genus.

## PSEUDODEROPELTIS PRORSA sp. n.

♂. Rufo-testaceous. Vertex and frons castaneous. Pronotum castaneous, lateral margins broadly testaceous and a narrow sagittate marking on the median line of the disc. Tegmina and wings rufo-testaceous, considerably exceeding apex of abdomen. Meso- and metanotum with the characteristic membranous processes.

Supra-anal lamina quadrate, depressed in the middle, apex emarginate and fimbriate. Cerci rather short, castaneous. Front femora with a complete row of spines on the anterior margin beneath.

Total length 27,6 mill.; length of body 20 mill.; length of tegmina 23 mill.; pronotum 5 mill.  $\times$  6,1 mill.

Congo. One example.

## GYNA JOCOSA sp. n.

♂. Distance of eyes apart equal to breadth of 1st antennal joint. Head castaneous, vertex and mouth-parts testaceous, frons concave and transversely striate. Antennæ castaneous. Pronotum rufo-castaneous, margined all round with flavid, broadest laterally,



narrowest posteriorly; posterior half transversely striate. Tegmina with basal two-fifths castaneous, apical three-fifths testaceous with a large castaneous spot near the apex of the margin; the line of demarcation between these two coloured areas is V-shaped and finely dentate. Abdomen and legs orange. Supra-anal lamina sub-quadrangular, sub-genital lamina asymmetrical, styles minute. Cerci pointed, orange.

Total length 16 mill.; length of body 12,7 mill.; length of tegmina 14 mill.; pronotum 4,3 mill.  $\times$  5,2 mill.

Bena Bendi, Sankuru River (L. CLOETENS), Popocabacca (F. LOOS). Congo Free State. Two examples. Allied to *G. gloriosa* STÅL but smaller and differently coloured.

#### NAUPHÆTA SORDIDA sp. n.

♀. Dull sordid testaceous. Antennæ fuscous, eyes wide apart. Pronotum uniformly coloured with a few scattered fuscous points, some larger ones arranged round the margin. Tegmina not exceeding the apex of the abdomen by much, uniformly sordid testaceous with scattered black points, the extreme base of the radial vein piceous, mediastinal area rather narrow. Abdomen dull pale castaneous, supra-anal lamina bilobed. Legs dull testaceous spotted with castaneous points.

Total length 31 mill.; length of body 27,3 mill.; length of tegmina 24 mill.; pronotum 7 mill.  $\times$  9,8 mill.

Cameroons, Mukonje Farm (R. ROHDE). Two examples.

This dull-coloured species presents a great contrast to the bright testaceous species so characteristic of West-Africa; its nearest ally appears to be *N. heydeniana* SAUSS. & ZEHNT. from Madagascar, but that species has the tegmina shorter and is not spotted with black points, the tegmina also are more convex.

#### STILPNOBLATTA MINUTISSIMA sp. n.

♀. Dark castaneous, nitid, minutely and obscurely punctate. Eyes and antennal sockets equally far apart. Antennæ castaneous at base, fuscous in the middle, apical 3 joints testaceous. Pronotum not covering vertex of head. Tegmina squamiform, broader than long, scarcely exceeding the mesonotum, punctate, radial vein represented by an obtuse carina. Supra-anal lamina produced, rotundate, apex not emarginate, exceeded by the sub-genital lamina which is semi-orbicular, ample. Cerci very short and blunt, their jointing obscured.

Legs short, rufo-castaneous. Tarsi without arolia between the claws.

Length 8 mill. ; length of tegmina 1,6 mill. ; pronotum 2,8 mill.  $\times$  3,9 mill.

Congo State, Umangi (E. WILVERTH, Sept-Nov. 1906). Three examples.

The genus is new to Africa, the only other species known, *S. bengalensis*, SAUSS., occurring in India and Cochin China. The African species is distinguished by its very small size.

#### SALGANEA PAPUA sp. n.

♀. Piceous, of large size. Pronotum anteriorly with a wide deep emargination, the angles of this upwardly and backwardly produced to form two hooked processes. Anterior part of pronotum depressed, granulate, with two curved oblique sulci. Six small tubercles arranged semicircularly across the pronotum immediately behind the depressed area. Tegmina and wings considerably exceeding the apex of the abdomen, generally much mutilated or amputated. The first 5 abdominal tergites faintly punctate, the remainder deeply cribrate-punctate. Lateral margins of 7th tergite sinuate, dentate, posterior angles produced, an oblique depressed scar on either side of the disc of this tergite. Margin of supra-anal lamina finely and regularly dentate, a large blunt tooth on either side at the base. Cerci short, conical. Ventral surface more sparsely punctate than dorsal surface. Front femora with two spines on anterior margin beneath.

Total length 75 mill. ; length of body 60–67 mill. ; length of tegmina 63 mill. ; pronotum 14 mill.  $\times$  24 mill.

German New-Guinea, Sattelberg (Oxford Mus. Type); British New Guinea (Oxford Mus. and Melbourne Mus.); Astrolabe Bay (Brussels Mus.).

The largest species of the genus and one of the largest of the sub-family.

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